

IN THE CLAIMS

Claim 1. (Currently Amended) A termination resistor circuit, provided in an interface circuit through which signals are transferred, comprising:

1
a first termination resistor block having a first ~~plurality of transistors, the first plurality of transistors including at least one diode-connected transistor;~~ transistor which is a diode-connected transistor, and a second transistor which is not a diode-connected transistor; and

a second termination resistor block having a ~~second plurality of transistors, the second plurality of transistors including no diode-connected transistor, and wherein:~~ the second transistor and a third transistor which is not a diode-connected transistor, the second transistor being used in common by said first termination resistor block and said second termination resistor block;

wherein said first termination resistor block and said second termination resistor block are connected at terminals of the second transistor; and wherein said termination resistor circuit is switched between said first termination resistor block and said second termination resistor block.

Claim 2. (Currently Amended) The termination resistor circuit as claimed in claim 1, ~~wherein:~~ wherein said first termination resistor block comprises transistors of a same conductivity type; and wherein said second termination resistor block comprises transistors of different conductivity types.

Claim 3. (Currently Amended) A termination resistor circuit provided in an interface circuit through which signals are transferred via a transmission line, comprising:

Can
a first termination resistor block having a plurality of transistors first transistor and a second transistor, a gate of ~~at least one of the transistors of said first termination resistor block~~ the first transistor being applied with a ~~supply~~ reference voltage or a voltage of said transmission line, and a gate of the second transistor being not applied with the reference voltage nor the voltage of said transmission line; and

a second termination resistor block having ~~a plurality of transistors, and which differs in configuration from said first termination resistor block, and wherein, the second transistor and a third transistor whose gate is not applied with the reference voltage nor the voltage of said transmission line, the second transistor being used in common by~~ said first termination resistor block and said second termination resistor block;

wherein said first termination resistor block and said second termination resistor block are connected at terminals of said the second transistor; and wherein said termination resistor circuit is switched between said first termination resistor block and said second termination resistor block.

Claim 4. (Currently Amended) The termination resistor circuit as claimed in claim 3, ~~wherein:~~ wherein said first termination resistor block comprises transistors of a same conductivity type; and wherein said second termination resistor block comprises transistors of different conductivity types.

Claim 5. (Currently Amended) A termination resistor circuit provided in an interface circuit through which signals are transferred, comprising:

a first termination resistor block; and

a second termination resistor ~~block, wherein~~ block coupled in parallel with said first terminal resistor block;

wherein said first termination resistor block differs from said second termination block by including ~~at least one~~ a first transistor whose gate is connected to its drain; and

wherein said first termination resistor block further includes a second transistor whose gate is not connected to its drain;

wherein said second termination resistor block includes the second transistor and a third transistor whose gate is not connected to its drain;

wherein the second transistor is used in common by said first termination resistor block and said second termination resistor block; and

wherein said termination resistor circuit is switched between said first termination resistor block and said second termination resistor ~~block, and~~ block.

Claim 6. (Currently Amended) The termination resistor circuit as claimed in claim 4, wherein ~~said first termination resistor block has first and second transistors and~~ said first and second transistors are chosen to have a size for said first termination resistor block so that said first termination resistor block has a respectively chosen weight.

Claim 7. (Currently Amended) The termination resistor circuit as claimed in claim 4, wherein said first, second and third transistors ~~of said first and second termination resistor blocks~~ are chosen to be substantially equal in size for each of said first and second termination resistor blocks so that said first and second termination resistor blocks have the same weight.

Original
Claim 8. (Currently Amended) The termination resistor circuit as claimed in claim 4, wherein said first, second and third transistors ~~for said first and second termination resistor blocks~~ are chosen to have a size for each of said first and second termination resistor blocks so that said first and second termination resistor blocks have respectively chosen weights.

Claim 9. (Canceled)

Claim 10. (Currently Amended) A signal transmission system, comprising:
a transmitting circuit for transmitting a signal;
a transmission line for transmitting the signal output from said transmitting circuit;
a receiving circuit for receiving the signal transmitted from said transmitting circuit through said transmission line; and
a termination resistor circuit connected to said transmission line and provided in an interface circuit through which signals are transferred, wherein said termination resistor circuit comprises:

a first termination resistor block having a first ~~plurality of transistors~~, the ~~first plurality of transistors including at least one diode-connected transistor~~ transistor which is a diode-connected transistor and a second transistor which is not a diode-connected transistor; and

a second termination resistor block having a ~~second plurality of transistors~~, the ~~second plurality of transistor including no diode-connected transistor~~, and wherein: the second transistor and a third transistor which is not a diode-connected transistor, the second transistor being used in common by said first termination resistor block and said second termination resistor block;

wherein said termination resistor circuit is switched between said first termination resistor block and said second termination resistor block.

2 Claim 11. (Currently Amended) The signal transmission system ~~termination~~ as claimed in claim 10, ~~wherein~~: wherein said first termination resistor block comprises transistors of a same conductivity type; and wherein said second termination resistor block comprises transistors of different conductivity types.

Claim 12. (Currently Amended) A signal transmission system, comprising:
a transmitting circuit for transmitting out a signal;
a transmission line for transmitting therethrough the signal output from said transmitting circuit;

a receiving circuit for receiving the signal transmitted from said transmitting circuit through said transmission line; and

a termination resistor circuit connected to said transmission line and provided in an interface circuit through which signals are transferred, wherein said termination resistor circuit comprises:

3 a first termination resistor block having a ~~plurality of transistors~~ first transistor and a second transistor, a gate of ~~at least one of the transistors of said first termination resistor block~~ the first transistor being applied with a supply reference voltage or a voltage of said transmission line, and a gate of the second transistor being not applied with the reference voltage nor the voltage of said transmission line; and

a second termination resistor block having a ~~plurality of transistors, which differs in configuration from said first termination resistor block, and wherein, the second transistor and a third transistor whose gate is not applied with the reference voltage nor the voltage of said transmission line, the second transistor being used in common by said first termination resistor block and said second termination resistor block~~;

wherein said termination resistor circuit is switched between said first termination resistor block and said second termination resistor block.

f Claim 13. (Currently Amended) The signal transmission system as claimed in claim 12, ~~wherein,~~ wherein said first termination resistor block comprises transistors of a

same conductivity type; and wherein said second termination resistor block comprises transistors of different conductivity types.

Claim 14. (Currently Amended) A signal transmission system, comprising:
a transmitting circuit for transmitting a signal;
a transmission line for transmitting the signal output from said transmitting circuit;
a receiving circuit for receiving the signal transmitted from said transmitting circuit through said transmission line; and
a termination resistor circuit connected to said transmission line and provided in an interface circuit through which signals are transferred, wherein said termination resistor circuit comprises:

a first termination resistor block; and

a second termination resistor ~~block, wherein:~~ block;

wherein said first termination resistor block differs from said second termination resistor block by including ~~at least one~~ a first transistor whose gate is connected to its drain; and

wherein said first termination resistor block further includes a second transistor whose gate is not connected to its drain;

wherein said second termination resistor block includes the second transistor and a third transistor whose gate is not connected to its drain, the second transistor being used in common by said first termination resistor block and said second termination resistor block;

wherein said termination resistor circuit is switched between said first termination resistor block and said second termination resistor block.

6
Claim 15. (Currently Amended) The signal transmission system as claimed in claim 13, wherein said first and second transistors are chosen to have a size for each of said first and second termination resistor blocks so that said first and second termination resistor blocks have respectively chosen weights.

7
Claim 16. (Currently Amended) The signal transmission system as claimed in claim 13, wherein ~~third and fourth~~ said second and third transistors are chosen to be substantially equal in size for each of said first and second termination resistor blocks so that said first and second termination resistor blocks have the same weight.

8
Claim 17. (Currently Amended) The signal transmission system as claimed in claim 13, wherein said ~~third and fourth~~ second and third transistors are chosen to have a size for each of said first and second termination resistor blocks so that said ~~plurality of first and~~ second termination resistor blocks have respectively chosen weights.

Claim 18. (Canceled)

Claim 19. (Currently Amended) A signal transmission system, comprising:
a transmission line for transmitting a signal;

a receiving circuit for receiving the signal transmitted through said transmission line; and

a termination resistor circuit connected to said transmission line and provided in an interface circuit through which signals are transferred, wherein said termination resistor circuit comprises:

C. Cont'd
a first termination resistor block having a first ~~plurality of transistors, the first plurality of transistors including at least one diode-connected transistor~~ which is a diode-connected transistor, and a second transistor which is not a diode-connected transistor; and

a second termination resistor block having ~~a second plurality of transistors, the second plurality of transistors including no diode-connected transistor, and wherein: the second transistor and a third transistor which is not a diode-connected transistor, the second transistor being used in common by said first termination resistor block and said second termination resistor block;~~

wherein said termination resistor circuit is switched between said first termination resistor block and said second termination resistor block.

2 Claim 20. (Currently Amended) The signal transmission system ~~termination as~~ claimed in claim 19, ~~wherein:~~ wherein said first termination resistor block comprises transistors of a same conductivity type; and wherein said second termination resistor block comprises transistors of different conductivity types.

Claim 21. (Currently Amended) A signal transmission system, comprising:
a transmission line for transmitting a signal;
a receiving circuit for receiving the signal transmitted through said transmission line; and

a termination resistor circuit connected to said transmission line and provided in an interface circuit through which signals are transferred, wherein said termination resistor circuit comprises:

3 { a first termination resistor block having a ~~plurality of transistors~~ first transistor and a second transistor, a gate of ~~at least one of the transistors of said first termination resistor block~~ the first transistor being applied with a supply reference voltage or a voltage of said transmission line, and a gate of the second transistor being not applied with the reference voltage nor the voltage of said transmission line; and

a second termination resistor block having a ~~plurality of transistors, which differs in configuration from said first termination resistor block, and wherein, the second transistor and a third transistor whose gate is not applied with the reference voltage nor the voltage of said transmission line, the second transistor being used in common by said first termination resistor block and said second termination resistor block~~;

wherein said termination resistor circuit is switched between said first termination resistor block and said second termination resistor block.

4 Claim 22. (Currently Amended) The signal transmission system as claimed in claim 21, ~~wherein:~~ wherein said first termination resistor block comprises transistors of a same conductivity type; and wherein said second termination resistor block comprises transistors of different conductivity types.

C' Cont'd
Claim 23. (Currently Amended) A signal transmission system, comprising:
a transmitting circuit for transmitting a signal;
a transmission line for transmitting the signal output from said transmitting circuit;
a receiving circuit for receiving the signal transmitted from said transmitting circuit through said transmission line; and

§ a termination resistor circuit connected to said transmission line and provided in an interface circuit through which signals are transferred, wherein said termination resistor circuit comprises:

a first termination resistor block having a first ~~plurality of transistors, the first plurality of transistors including at least one diode-connected transistor~~ which is a diode-connected transistor, and a second transistor which is not a diode-connected transistor; and

a second termination resistor block having a ~~second plurality of transistors, the second plurality of transistors including no diode-connected transistor, and wherein:~~ the second transistor and a third transistor which is not a diode-connected transistor, the second transistor being used in common

C'
contd

by said first termination resistor block and said second termination resistor

block;

wherein said termination resistor circuit is switched between said first termination resistor block and said second termination resistor block.
